

## SORT MIDDLE, SCREEN SPACE, GRAPHICS GEOMETRY

### COMPRESSION THROUGH REDUNDANCY ELIMINATION

#### CROSS REFERENCE TO RELATED APPLICATION

5 This is a continuation application of co-pending application number  
now Pat. No. 6,628,836  
09/412,898 filed on October 5, 1999, which is hereby incorporated by reference  
herein.

AD  
6/28/05

#### BACKGROUND OF THE INVENTION

##### 1. Field of Invention

10 The present invention relates generally to the field of computer graphics and  
pertains more particularly to sort middle, screen space, graphics geometry  
compression through redundancy elimination.

##### 2. Discussion of the Prior Art

Modern computer systems have become increasingly graphics intensive.

15 Dedicated special purpose memories and hardware have been developed to meet this  
need. The majority of graphics systems are built to accelerate the standard graphics  
pipeline. As an example FIG. 1 shows a block diagram of a graphics pipeline 10  
having geometry processing 12 and rasterization 14. The pipeline 10 processes a three  
dimensional (3D) database 16 having geometric objects 18 and textures 20 into a  
20 display image 22 which may be shown to the user on a display monitor (not shown).  
The geometric objects 18 are typically polygons but may also be triangles, lines, and  
points. These are also known as primitives. For a particular primitive, its vertices or  
geometrical point locations ( $p_x, p_y, p_z$ ) are typically IEEE floating point values. Also,  
attributes such as colors, normals, and texture coordinates may be specified at each